

**Table 1** - Permanent Posterior Teeth - Proximal Surfaces

<b>Citation, Method</b>	<b>Sites Raters</b>	<b>Prevalence</b>	<b>Criteria</b>	<b>Sensitivity</b>	<b>Specificity</b>	<b>Type</b>
Rugg-Gunn, 1972 (12) D speed film	370 NR	9%	Lesion in enamel & outer ½ dentin	0.35	<b>1.00</b>	Cavitated Lesions
Downer, 1975 (13) D-speed film	185 NR	36%	Lesion at DEJ or beyond	0.73	0.97	Cavitated Lesions
Mejare, Grondahl, Carlstedt, et al, 1985 (14) D-speed film	598 3	5%	Lesion 2/3 enamel thickness	0.36	0.98	Cavitated Lesions
Pitts & Rimmer, 1992(15) D-speed film	1468 1	1%	Lesion into dentin	0.87	0.99	Cavitated Lesions
Hintze, Wenzel, Danielsen, et al, 1998 (16) E-speed film	338 4	6%	Lesion into dentin	0.63	0.93	Cavitated Lesions
Espelid & Tveit, 1986(17) D-speed film	151 7	19%	Lesion involving DEJ	0.69	0.89	Cavitated Lesions
<b>Mean Performance</b>				<b>0.61 ± 0.21</b>	<b>0.96 ± 0.04</b>	
Mileman & van der Weele, 1990 (18) D-speed film	105 276	43%	Lesion into outer ½ of dentin	0.54	0.97	Dentin Lesions
Verdonschot, van de Rijke, Brouwer, et al, 1991 (19) D-speed film	21 3	NR	Lesion reaching DEJ	0.50	0.94	Dentin Lesions
Russell & Pitts, 1993 (20) D-speed film E-speed film RVG	240 3	NR	Lesion penetrating DEJ	<b>0.29</b> 0.30 <b>0.16</b>	0.92 0.96 0.96	Dentin Lesions
Ricketts, Whaites, Kidd, et al, 1997 (21) D-speed film	96teeth 5	13%	Lesion into dentin	<b>0.16</b>	0.99	Dentin Lesions
<b>Mean Performance</b>				<b>0.33 ± 0.16</b>	<b>0.96 ± 0.02</b>	
Heaven, Firestone, & Feagin, 1992 (22) D-speed film with image analysis	16 1	75%	NR	<b>1.0</b>	<b>1.0</b>	All Lesions
Russell & Pitts, 1993 (20) D-speed film E-speed film RVG	240 3	NR	Lesion penetrating DEJ	<b>0.26</b> <b>0.25</b> <b>0.15</b>	0.90 0.90 0.92	All Lesions
Ricketts, Whaites, Kidd, et al, 1997 (21) D-speed film	96teeth 5	37%	Lesion into dentin	0.27	0.97	All Lesions
Firestone, Sema, Heaven et al, 1998 (23) D-speed film Film image analysis Sensaray image analysis	102 1	66%	NR	0.61 0.78 0.73	0.86 0.74 0.82	All Lesions
<b>Mean Performance</b>				<b>0.51 ± 0.31</b>	<b>0.89 ± 0.08</b>	

**Table 2 - Permanent Posterior Teeth - Occlusal Surfaces**

Citation, Method	Sites Raters	Prevalence	Criteria	Sensitivity	Specificity	Type
Wenzel, Fejerskov, Kidd, et al 1990 (24) D-speed film Digitized film enhanced	46 6	72%	caries into dentin	0.63 0.68	0.94 0.98	Dentin Lesions
Wenzel, Hintze, Mikkelsen, et al, 1991(25) E-speed film Digitized film Digitized film enhanced RVG contrast enhanced RVG density saturation	81 4	67%	caries into dentin	0.63 0.72 0.62 0.69 0.64	0.85 0.83 0.83 0.84 0.82	Dentin Lesions
Wenzel & Fejerskov, 1992 (26) E-speed film Digitized film Digitized film enhanced	78 1	67%	caries reaching dentin	0.48 0.71 0.54	0.81 0.85 0.77	Dentin Lesions
Nytun, Raadal, & Espelid, 1992 (27) Film	30 10	77%	radiolucency involving dentin	0.66	<b>0.50</b>	Dentin Lesions
Keltey & Holt, 1993 (28) D-speed film	100 1	51%	radiolucency into dentin	0.67	0.92	Dentin Lesions
Russell & Pitts, 1993 (20) D-speed film E-speed film RVG	120 3	28%	radiolucency penetrating beyond DEJ	<b>0.18</b> <b>0.21</b> <b>0.21</b>	0.98 0.99 0.97	Dentin Lesions
Lussi, 1993 (29) D-speed film	63 24	44%	caries into dentin	0.45	0.83	Dentin Lesions
Verdonschot, Wenzel, Truin, et al, 1993 (30) E-speed film	81 4	67%	dental caries	0.61	0.79	Dentin Lesions
Lussi, Firestone, Schoenbong, et al, 1995 (31) D-speed film	26 6	42%	caries beyond the DEJ	0.62	0.77	Dentin Lesions
Ricketts, Kidd, Smith, et al, 1994 (32) D-speed film	48 12	67%	dentine caries	0.62	0.76	Dentin Lesions
Ekstrand, Ricketts, & Kidd, 1997 (33) D-speed film	100 3	39%	radiolucency to middle 1/3 of dentin	0.54	<b>1.00</b>	Dentin Lesions
Huysmans, Hitze, & Wenzel, 1997 (34) Digora	189 3	55%	caries into dentin	0.60	0.94	Dentin Lesions
Ricketts, Whaites, Kidd, et al, 1997 (21)	96 5	39%	radiolucency into dentin	<b>0.14</b>	0.95	Dentin Lesions
Ashley, Blinkhorn, & Davies, 1998 (35) E-speed film Digora	103 1	36%	radiolucency into dentin	<b>0.24</b> <b>0.19</b>	0.89 0.89	Dentin Lesions
Huysmans, Longbottom, & Pitts, 1998 (36) E-speed film	107 2	41%	radiolucency into dentin	0.58	0.87	Dentin Lesions
<b>Mean Performance</b>				<b>0.51 ± 0.19</b>	<b>0.86 ± 0.11</b>	

Wenzel, Fejerskov, Kidd, et al 1990 (24) D-speed film Digitized film enhanced	46 2	89%	caries into enamel	0.73 0.79	0.80 0.90	All Lesions
Russell & Pitts, 1993 (20) D-speed film E-speed film RVG	120 3	NR	radiolucency penetration beyond DEJ	<b>0.12</b> <b>0.12</b> <b>0.15</b>	0.95 0.96 0.97	All Lesions
Lazarchik, Firestone, Heaven, et al, 1995 (37) D-speed film	100 15	79%	caries present	0.58	0.79	All Lesions
Ricketts, Whaites, Kidd, et al, 1997 (21) D-speed film	96 5	70%	radiolucency into dentin	<b>0.27</b>	0.97	All Lesions
<b>Mean Performance</b>				<b>0.39 ± 0.30</b>	<b>0.91 ± 0.08</b>	